

SiteManager **Training Manual**



Module F
Chapter 4

Materials Management
Mix Design

Section F-4-3-1
Creating Pavement Structural Design Data

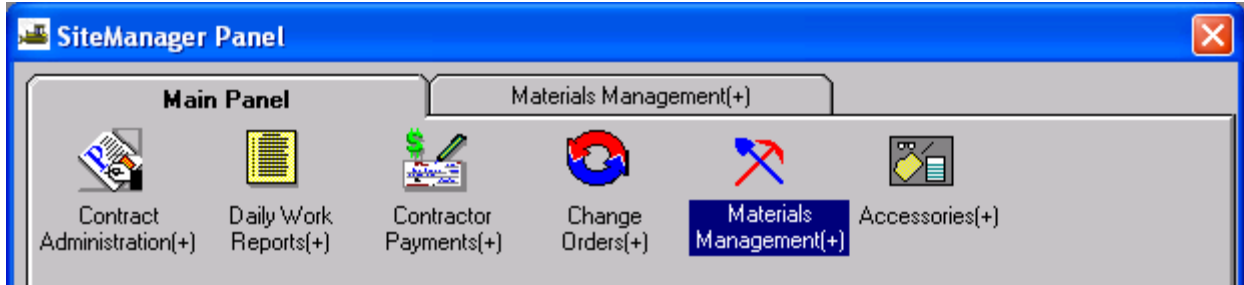
Student's Version

Indiana Department of Transportation
December 2007 Version 3.7b

This page intentionally left blank

Creating Pavement Structural Design Data

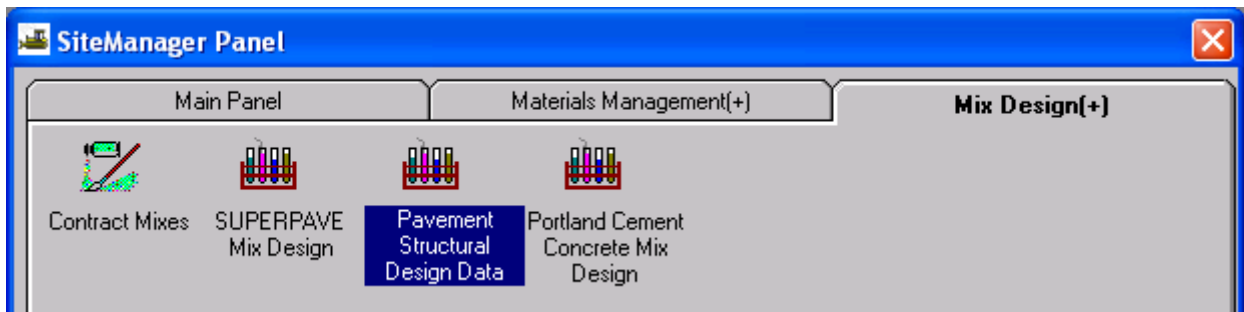
This document is used to update, modify or view **Pavement Structural Design** information. The window provides a means for capturing as-built pavement data for each typical section on a contract and project.



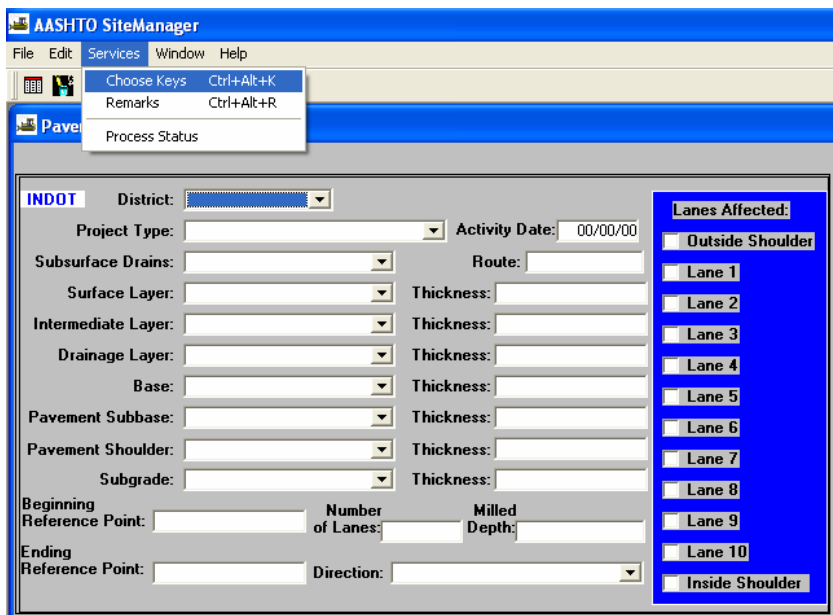
“Double-click” on **Materials Management** located on the Main Panel.



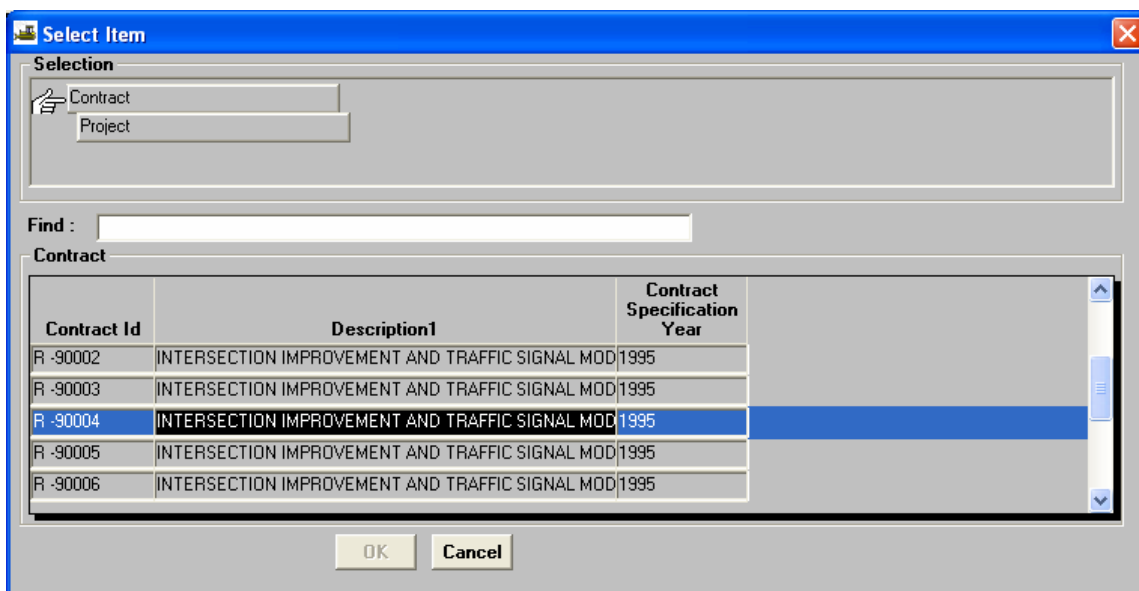
“Double-click” on **Mix Design**.



“Double-click” on **Pavement Structural Design Data**.



“Click” on **Services** located on the menu bar. “Click” on **Choose Keys**.



Use the Scroll or Find/Filter/Sort technique to locate the **Contract ID**.
 “Double-click” on the appropriate **Contract ID**.

Select Item

Selection

Contract: R-90004

Project: 9620710

Find:

Project

Project Number
9620710
982071A

“Click” on the appropriate **Project Number**.

AASHTO SiteManager

File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Crawfordsville

Subsurface Drains: Greenfield

Surface Layer: Seymour

Intermediate Layer: Vincennes

Drainage Layer:

Base:

Pavement Subbase:

Pavement Shoulder:

Subgrade:

Activity Date: 00/00/00

Route:

Thickness:

Thickness:

Thickness:

Thickness:

Thickness:

Thickness:

Thickness:

Beginning Reference Point:

Ending Reference Point:

Number of Lanes:

Milled Depth:

Direction:

Lanes Affected:

Outside Shoulder

Lane 1

Lane 2

Lane 3

Lane 4

Lane 5

Lane 6

Lane 7

Lane 8

Lane 9

Lane 10

Inside Shoulder

District: Select the appropriate **District** from the drop down list.

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: Thickness:
 Intermediate Layer: Thickness:
 Drainage Layer: Thickness:
 Base: Thickness:
 Pavement Subbase: Thickness:
 Pavement Shoulder: Thickness:
 Subgrade: Thickness:

Beginning Reference Point: Number of Lanes: Milled Depth:
 Ending Reference Point: Direction:

Lanes Affected:
 Outside Shoulder
 Lane 1
 Lane 2
 Lane 3
 Lane 4
 Lane 5
 Lane 6
 Lane 7
 Lane 8
 Lane 9
 Lane 10
 Inside Shoulder

Project Type: **Project Type** is the type of construction related to the typical section.

The choices are:

- Flexible on Subgrade
- Flexible over Compacted Aggregate
- Flexible over Rigid
- Flexible Overlay over Flexible Pavement
- Flexible Overlay over Rigid Pavement
- Flexible over Rubblized PCCP
- Flexible over Crack and Seated PCCP
- Rigid over Subbase for PCCP
- Rigid over Dense Graded Subbase
- Rigid over Flexible
- Rigid over Rigid
- Surface Treatment over Flexible
- Surface Treatment over Rigid
- Profiling PCCP
- Aggregate Pavement

Activity Date: **Activity Date** is the date when the construction of the section is completed. “Enter” the appropriate date in the **Activity Date** field using the format of mm/dd/yy.

Subsurface Drains: **Subsurface Drains** indicate if subsurface drains are utilized in the pavement section. “Click” on the **Subsurface Drains** drop-down list and “click” on the appropriate selection, **Yes** or **No**.

Route: **Route** is the roadway represented by the typical section. “Enter” the appropriate **Route** in the **Route** field.

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: SMA 12.5 Thickness: 1.5 inches

Intermediate Layer: HMA 19.0 Thickness: 3 inches

Drainage Layer: Thickness:

Base: Thickness:

Pavement Subbase: Thickness:

Pavement Shoulder: Thickness:

Subgrade: Thickness:

Beginning Reference Point: Number of Lanes: Milled Depth:

Ending Reference Point: Direction:

Lanes Affected:

- Outside Shoulder
- Lane 1
- Lane 2
- Lane 3
- Lane 4
- Lane 5
- Lane 6
- Lane 7
- Lane 8
- Lane 9
- Lane 10
- Inside Shoulder

Surface Layer: **Surface Layer** identifies the surface type.

The choices are:

- Aggregate
- HMA 4.75
- HMA 9.5
- HMA 12.5
- HMA 19.0
- HMA OG 25.0
- Full Depth PCCP
- SMA 9.5
- SMA 12.5
- Surface Treatment
- HMA OG 19.0

“Click” on the **Surface Layer** drop-down list and “click” on the appropriate type.

Thickness: **Thickness** (located to the right of the Surface Layer field) is the as-built thickness of the surface layer. Record the depth in inches (i.e. 1 in.).

“Enter” the thickness in the **Thickness** field.

Intermediate Layer : **Intermediate Layer** identifies the intermediate layer type. The choices are the same as for the **Surface Layer**.

“Click” on the **Intermediate Layer** drop-down list and “click” on the appropriate type, if applicable.

Thickness: **Thickness** (located to the right of the Intermediate Layer field) is the as-built thickness of the intermediate layer. Record the depth in inches (i.e. 1 in.).

“Enter” the thickness in the **Thickness** field, if applicable.

AASHTO SiteManager

File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: SMA 12.5 Thickness: 1.5 inches

Intermediate Layer: HMA 19.0 Thickness: 3 inches

Drainage Layer: HMA OG 25.0 Thickness: 4 inches

Base: HMA 25.0 Thickness: 8 inches

Pavement Subbase: Compacted Aggregate Base Thickness: 6 inches

Pavement Shoulder: Thickness:

Subgrade: Thickness:

Beginning Reference Point: Number of Lanes: Milled Depth:

Ending Reference Point: Direction:

Lanes Affected:

☐ Outside Shoulder

☐ Lane 1

☐ Lane 2

☐ Lane 3

☐ Lane 4

☐ Lane 5

☐ Lane 6

☐ Lane 7

☐ Lane 8

☐ Lane 9

☐ Lane 10

☐ Inside Shoulder

Drainage Layer: **Drainage Layer** identifies the drainage layer type. The choices are the same as for the **Surface Layer**

“Click” on the **Drainage Layer** drop-down list and “click” on the appropriate type, if applicable.

Thickness: **Thickness** (located to the right of the Drainage Layer field) is as-built thickness of the drainage layer. “Enter” the thickness in the **Thickness** field, if applicable.

Base: **Base** identifies **Base** type. The choices are:

- Compacted Aggregate Base
- HMA 19.0
- None
- Dense Graded Subbase
- HMA 25.0
- Subbase for PCCP

“Click” on the **Pavement Base** drop-down list and “click” on the appropriate type, if applicable.

Thickness: **Thickness** (located to the right of the Base field) is the as-built thickness of the base layer.

“Enter” the thickness in the **Thickness** field, if applicable.

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: SMA 12.5 Thickness: 1.5 inches

Intermediate Layer: HMA 19.0 Thickness: 3 inches

Drainage Layer: HMA OG 25.0 Thickness: 4 inches

Base: HMA 25.0 Thickness: 8 inches

Pavement Subbase: Compacted Aggregate Base Thickness: 6 inches

Pavement Shoulder: HMA over Aggregate Thickness: 9 inches

Subgrade: Thickness:

Beginning Reference Point: Number of Lanes: Milled Depth:

Ending Reference Point: Direction:

Lanes Affected:

☐ Outside Shoulder

☐ Lane 1

☐ Lane 2

☐ Lane 3

☐ Lane 4

☐ Lane 5

☐ Lane 6

☐ Lane 7

☐ Lane 8

☐ Lane 9

☐ Lane 10

☐ Inside Shoulder

Pavement Subbase: **Pavement Subbase** identifies the **Pavement Subbase** type. The choices are the same as for the **Base Layer**.

“Click” on the **Pavement Subbase** drop-down list and “click” on the appropriate type, if applicable.

Thickness: **Thickness** (located to the right of the Pavement Subbase field) is the as-built thickness of the subbase layer. “Enter” the subgrade thickness in the **Thickness** field, if applicable.

Pavement Shoulder: **Pavement Shoulder** identifies the Pavement Shoulder type. The choices are:

- Full Depth HMA
- Full Depth PCCP
- HMA over Aggregate
- Aggregate
- Earth Shoulder
- No Shoulder

“Click” on the **Pavement Shoulder** drop-down list and “click” on the appropriate type, if applicable.

Thickness: **Thickness** (located to the right of the Pavement Shoulder field) is the as-built thickness of the shoulder. “Enter” the thickness in the **Thickness** field, if applicable.

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer:	SMA 12.5	Thickness:	1.5 inches
Intermediate Layer:	HMA 19.0	Thickness:	3 inches
Drainage Layer:	HMA OG 25.0	Thickness:	4 inches
Base:	HMA 25.0	Thickness:	8 inches
Pavement Subbase:	Compacted Aggregate Base	Thickness:	6 inches
Pavement Shoulder:	HMA over Aggregate	Thickness:	9 inches
Subgrade:	Type IIA	Thickness:	8 inches

Beginning Number Milled

Lanes Affected:

- ☒ Outside Shoulder
- ☐ Lane 1
- ☐ Lane 2
- ☐ Lane 3
- ☐ Lane 4
- ☐ Lane 5
- ☐ Lane 6
- ☐ Lane 7
- ☐ Lane 8

Subgrade: Subgrade identifies the Subgrade type. The choices are:

- Type I
 - a. 16 in. (400 mm) chemical soil modification
 - b. 12 in. (300 mm) of the subgrade excavated and replaced with course aggregate No. 53
 - c. 24 in. (600 mm) of soil compacted to density and moisture requirements
- Type IA
 - a. 16 in. (400 mm) chemical soil modification
 - b. 12 in. (300 mm) of the subgrade excavated and replaced with course aggregate No. 53
- Type II
 - a. 8 in. (200 mm) chemical soil modification
 - b. 6 in. (150 mm) of the subgrade excavated and replaced with course aggregate No. 53
 - c. 12 in. (300 mm) of soil compacted to density and moisture requirements
- Type IIA
 - a. 8 in. (200 mm) chemical soil modification
 - b. 6 in. (150 mm) of the subgrade excavated and replaced with course aggregate No. 53
- Type III
 - a. 6 in. (150 mm) of soil compacted to the density and moisture requirements
 - b. 6 in. (150 mm) of subgrade excavated and replaces with course aggregate No. 53
- Type IIIA
 - a. 6 in. (150 mm) of subgrade excavated and replaced with course aggregate No. 53
- Type IV
 - a. 9 in. (225 mm) of the subgrade excavated and replaced with course aggregate No. 53 on geogrid

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: SMA 12.5	Thickness: 1.5 inches
Intermediate Layer: HMA 19.0	Thickness: 3 inches
Drainage Layer: HMA OG 25.0	Thickness: 4 inches
Base: HMA 25.0	Thickness: 8 inches
Pavement Subbase: Compacted Aggregate Base	Thickness: 6 inches
Pavement Shoulder: HMA over Aggregate	Thickness: 9 inches
Subgrade: Type IIA	Thickness: 8 inches

Beginning Reference Point: 2+333.124 Number of Lanes: 4 Milled Depth: 3 inches

Ending Reference Point: Direction:

Lanes Affected:

- ☐ Outside Shoulder
- ☐ Lane 1
- ☐ Lane 2
- ☐ Lane 3
- ☐ Lane 4
- ☐ Lane 5
- ☐ Lane 6
- ☐ Lane 7
- ☐ Lane 8
- ☐ Lane 9
- ☐ Lane 10
- ☐ Inside Shoulder

“Click” on the **Subgrade** drop-down list and “click” on the appropriate type, if applicable.

Thickness: **Thickness** (located to the right of the **Subgrade** field) is the as-built thickness for the subgrade.

“Enter” the thickness in the **Thickness** field, if applicable.

Beginning Reference Post: **Beginning Reference Post** is the value in roadway mileage where the typical section begins.

“Enter” the value in the **Beginning Reference Post** field.

Number of Lanes: **Number of Lanes** is the quantity of lanes that are affected by the typical section.

“Enter” the number of lanes in the **Number of Lanes** field.

Milled Depth: **Milled Depth** is the depth the pavement was milled.

“Enter” the depth in the **Milled Depth** field, if applicable.

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: SMA 12.5 Thickness: 1.5 inches

Intermediate Layer: HMA 19.0 Thickness: 3 inches

Drainage Layer: HMA OG 25.0 Thickness: 4 inches

Base: HMA 25.0 Thickness: 8 inches

Pavement Subbase: Compacted Aggregate Base Thickness: 6 inches

Pavement Shoulder: HMA over Aggregate Thickness: 9 inches

Subgrade: Type IIA Thickness: 8 inches

Beginning Reference Point: 2+333.124 Number of Lanes: 4 Milled Depth: 3 inches

Ending Reference Point: 3+787.000 Direction: Decreasing Mainline

Lanes Affected:

☐ Outside Shoulder

☐ Lane 1

☐ Lane 2

☐ Lane 3

☐ Lane 4

☐ Lane 5

☐ Lane 6

☐ Lane 7

☐ Lane 8

☐ Lane 9

☐ Lane 10

☐ Inside Shoulder

Ending Reference Post: **Ending Reference Post** is the value in roadway mileage where the typical section ends.

“Enter” the ending reference post in the **Ending Reference Post** field.

Direction: **Direction** is the description of the lane direction with regard to the reference post and direction of travel for the typical section. Increasing direction is the direction of travel where the reference posts values are increasing numerically. Decreasing direction is the direction of travel where the reference posts values are decreasing numerically. The choices are:

- Increasing Mainline
- Increasing Collector/Distributor
- Increasing Left Turn Lane
- Increasing Right Turn Lane
- Increasing Exit/Entrance Loop
- Increasing Exit/Entrance Ramp
- Decreasing Mainline
- Decreasing Collector/Distributor
- Decreasing Left Turn Lane
- Decreasing Right Turn Lane
- Decreasing Exit/Entrance Loop
- Decreasing Exit/Entrance Ramp

“Click” on the **Direction** drop-down list. Navigate through the list by using the keyboard arrow keys to locate the appropriate **Direction**.

“Click” on all the appropriate directions that apply.

AASHTO SiteManager
 File Edit Services Window Help

Pavement Structural Design Data

Contract: R-90004 Project: 9620710

INDOT District: Laporte

Project Type: Flexible on Subgrade Activity Date: 12/02/07

Subsurface Drains: Yes Route: US 421

Surface Layer: SMA 12.5 Thickness: 1.5 inches

Intermediate Layer: HMA 19.0 Thickness: 3 inches

Drainage Layer: HMA OG 25.0 Thickness: 4 inches

Base: HMA 25.0 Thickness: 8 inches

Pavement Subbase: Compacted Aggregate Base Thickness: 6 inches

Pavement Shoulder: HMA over Aggregate Thickness: 9 inches

Subgrade: Type IIA Thickness: 8 inches

Beginning Reference Point: 2+333.124 Number of Lanes: 4 Milled Depth: 3 inches

Ending Reference Point: 3+787.000 Direction: Decreasing Mainline


Lanes Affected:

- ☒ Outside Shoulder
- ☒ Lane 1
- ☒ Lane 2
- ☐ Lane 3
- ☐ Lane 4
- ☐ Lane 5
- ☐ Lane 6
- ☐ Lane 7
- ☐ Lane 8
- ☐ Lane 9
- ☐ Lane 10
- ☒ Inside Shoulder

Lanes Affected: Lanes Affected are the lane(s) that are identified on the typical section. Multiple selections may be made. The choices are:

- Outside Shoulder
- Lane 1
- Lane 2
- Lane 3
- Lane 4
- Lane 5
- Lane 6
- Lane 7
- Lane 8
- Lane 9
- Lane 10
- Inside Shoulder


“Click” on all appropriate lanes.


“Click” on the **Remarks**  button located on the toolbar to enter additional information related to the Pavement Structural design.

Remarks should include the other subgrade types and any other specific information related to the typical section.

“Click” on the **Remarks**  button to close the **Remarks** window

“Click” on the **Save**  button located on the toolbar.

To add an additional typical section information “click” the **New**  button located on the toolbar and repeat the steps starting on page 3 with the **Project Type**.

“Click” the **Close**  button located on the toolbar to close the **Pavement Structural Design Data** window.